

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

## Section 8–2 Photosynthesis: An Overview (pages 204–207)

*This section describes what important experiments revealed about how plants grow. It also introduces the overall equation for photosynthesis and explains the roles light and chlorophyll have in the process.*

### Introduction (page 204)

1. What occurs in the process of photosynthesis? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Investigating Photosynthesis (pages 204–206)

2. What did Jan van Helmont conclude from his experiment? \_\_\_\_\_  
\_\_\_\_\_
3. Circle the letter of the substance produced by the mint plant in Joseph Priestley's experiment.  
a. carbon dioxide      b. water      c. air      d. oxygen
4. What did Jan Ingenhousz show? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### The Photosynthesis Equation (page 206)

5. Write the overall equation for photosynthesis using words.  
\_\_\_\_\_ → \_\_\_\_\_
6. Write the overall equation for photosynthesis using chemical formulas. \_\_\_\_\_ → \_\_\_\_\_
7. Photosynthesis uses the energy of sunlight to convert water and carbon dioxide into oxygen and high-energy \_\_\_\_\_.

### Light and Pigments (page 207)

8. What does photosynthesis require in addition to water and carbon dioxide?  
\_\_\_\_\_  
\_\_\_\_\_
9. Plants gather the sun's energy with light-absorbing molecules called \_\_\_\_\_.
10. What is the principal pigment of plants? \_\_\_\_\_

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### Chapter 8, Photosynthesis *(continued)*

11. Circle the letter of the regions of the visible spectrum in which chlorophyll absorbs light very well.
- a. blue region
  - b. green region
  - c. red region
  - d. yellow region

#### **Reading Skill Practice**

By looking at illustrations in textbooks, you can help yourself remember better what you have read. Look carefully at Figure 8-4 on page 206. What important ideas does this illustration communicate? Do your work on a separate sheet of paper.